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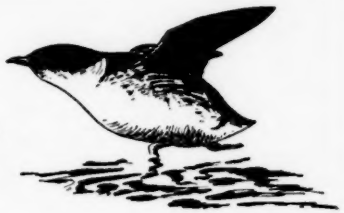

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NOTES ON THE LITTLE PIKED WHALE

LESLIE W. SCATTERGOOD

The little piked whale (*Balaenoptera acutorostrata* Lacépède) is the smallest species of the genus *Balaenoptera*. In common with the other three species of this genus, it has baleen, a dorsal fin, and ventral furrows. Its small size, yellowish-white whalebone, and characteristic white band on the pectoral fin distinguish it from the blue, finback, and sei whales. Unlike its three relatives, it bears numerous common English names, including the following: sharp-headed finner whale, lesser rorqual, least rorqual, pigmy whale, minke whale, and bay whale.

In 1938 I had the good fortune to examine and measure two of these small whales in Washington State. Information on the two specimens has been published recently by Scheffer and Slipp (1948). The purposes of this report are to supplement the data of those two authors and to summarize our knowledge of this species.

The exhibition of a little piked whale on the Seattle water front in March, 1938, first aroused my interest in this animal. Fortunately, I was able to interview the farmer who discovered the whale in the Snohomish River. The following account, as I obtained it, differs slightly from that of Scheffer and Slipp.

On a late Saturday afternoon in March, 1938, a little piked whale was stranded on a gravel bar in the Snohomish River, about 15 miles from the river's outlet into Puget Sound near Everett, Washington. The thrashing of the animal was noticed by a cattle herdsman, Homer Stephens, who thought that the whale was a large sturgeon (*Acipenser transmontanus*), a fish of considerable value. Hoping to profit by the creature's misfortune, the farmer shot the whale with a large caliber rifle and supposedly killed it. Although somewhat disappointed when he discovered the animal's identity, he nevertheless decided to exhibit it in his barn and charge admission. As darkness was approaching, the work of hauling the whale out of the water had to be postponed. To make the whale secure for the night, one end of a heavy rope was attached to its tail and the other end to a tree on the bank of the river. During the night, the whale parted the line and swam a few hundred yards upstream where the farmer's daughter found it in a weakened condition early in the morning. The animal was then dragged into the pasture. The farmer found that it was necessary to obtain a license before charging admission, and, as the license bureau was closed on Sunday, he was unable to collect any money legally from spectators. By Monday morning so many people had already seen the whale that the farmer decided that there would be few in the vicinity who had not looked at the animal and who would be willing to pay an admission price. Plans for the business venture were abandoned and the whale was sold to a commercial fish company in Seattle where it was put on display in the retail branch of the concern on the water front. After a week of exhibit, the animal was sent to a reduction plant.

In view of the general inaccuracy of newspapers in reporting measurements or weights of whales, it is indeed remarkable that the newspaper clippings mentioned by Scheffer and Slipp stated the length as 15 feet 6 inches, while my measurement was 15 feet 8 inches.

Another specimen mentioned by Scheffer and Slipp can be seen at the fish museum of the Port of Seattle's Spokane Street Terminal. It may be the only frozen whale in the country, if not the world. Measurements of this and the Snohomish whale are included in Table 1.

Another specimen has been identified from a photograph taken at Hood Bay, Alaska, by Jack Wolf, a former student at the University of Washington School of Fisheries. The whale, which would appear from the picture to be about 16 feet long, was caught in a salmon trap during the summer of 1936. The animal was killed in order to remove it from the trap and then was towed off to sink to the ocean bottom.

In consideration of the relatively few published records of the Eastern Pacific specimens, one would assume that this whale is not common. Scammon (1872) described one from Admiralty Inlet in Puget Sound, Washington State, and W. H. Dall (1874) gave measurements of a skull in the California Academy of Science. True (1904) presented data on a skull from St. Paul Island of the Pribilof group, Alaska. The United States National Museum in Washington, D.C., has a skull from Pearl Island, Alaska, and a skull and partial skeleton of another from Glacier Island, Alaska. Abbott (1930) reported a capture of this small whale at La Jolla, California, and Fry (1935) gave measurements of a specimen captured in Los Angeles Harbor,

Table 1. External Measurements of Two Washington State *Balaenoptera acutorostrata*.

MEASUREMENTS	SNOHOMISH RIVER		PUGET SOUND	
	Feet	*Inches*	*Feet*	*Inches*
Tip of upper jaw to fork of caudal fin	15	8.0	13	1.0
Tip of upper jaw to angle of mouth	2	6.0	2	2.0
Tip of lower jaw to angle of mouth	2	8.0	2	5.0
Tip of upper jaw to center of eye	2	7.5	2	3.0
Diameter of eye	0	2.0	0	2.0
Eye to eye, over top of head	2	7.0	2	2.0
Tip of upper jaw to center of blowholes	1	11.5	1	7.5
Length of blowholes	0	5.0	0	5.0
Tip of upper jaw to anterior insertion of pectoral fin	4	1.0	3	3.0
Width of pectoral fin insertion	0	11.5	0	11.0
Length of pectoral fin along anterior edge	2	0.0	1	11.0
Length of pectoral fin along posterior edge	1	6.0	1	5.0
Tip of pectoral to proximal edge of white strip, along anterior edge	1	4.0	1	3.0
Tip of pectoral to distal edge of white strip, along anterior edge	0	9.0	0	8.0
Tip of upper jaw to anterior insertion of dorsal fin	10	6.0	8	8.0
Length of dorsal fin insertion	0	11.5	0	10.0
Height of dorsal fin	0	7.0	0	6.5
Posterior margin of dorsal fin to notch of caudal fin	4	2.5	3	7.0
Anterior edge of genital slit to notch of caudal fin	5	3.0	4	9.0
Center of anus to notch of caudal fin	..	...	3	0.0
Width of caudal fin, tip to tip	3	1.5	3	0.0
Greatest width of caudal fin	3	4.0	3	1.5
Greatest girth, posterior to pectorals	7	10.0	6	5.0
Longest baleen fiber	0	4.0	0	3.5
	Number		*Number*	
Number of baleen on one side	272		256	
Number of gular folds	52		...	

California. Kellogg (1931) mentioned the two little piked whales taken by whalers in British Columbia in 1923, while at Vancouver Island, British Columbia, one was captured in a salmon trap in 1937 and another individual washed ashore in 1936 (Cowan 1939). Carl (1946) recorded one stranded on the same island in 1946. Scheffer and Slipp (1948) have four records of this whale in Washington State.

The paucity of published records results in a false picture of the relative abundance of this whale in the Northeastern Pacific. The coastal region between California and Alaska has extensive areas of sea coast which are inhabited by few people. Whales could be stranded in a great many sections of this long coastline and their presence never detected. In addition, few persons are sufficiently interested to identify whales and subsequently report them. A great deal of cetological research on both the toothed and the whalebone whales remains to be effected in the North Pacific.

There is evidence that these whales are common. Scammon (1874) mentioned that they were abundant along the North Pacific coast, and especially in the Strait of Juan de Fuca. In 1938 I discussed the occurrence of these animals with the whalers of the American Pacific Whaling Company of Bellevue, Washington, and learned that these whales were abundant around the Alaska whaling stations at Port Hobron and Akutan, but not so common in the regions of British Columbia and southeastern Alaska. Lt. Commander Albert VanDeventer, former whaling observer for the United States Coast Guard in Alaska, has also informed me recently that these small whales were often seen in the vicinity of Akutan and Port Hobron.

Balaenoptera acutorostrata has a world-wide distribution. In the Western Pacific it is known from the Philippine Islands, where Herre (1925) reported a capture in Manila Bay, to the Arctic Ocean (Tomilin 1937a,b). These whales are abundant in Korean waters (Tago 1937), in both the Yellow Sea and the Sea of Japan, and in the Kurile Islands (Matsuura 1936). According to Tomilin (1938), in the Sea of Kamchatka they are much less common than the finback whale (*B. physalus*). Tomilin (1937a) stated that, on an expedition off the Siberian coast between Kamchatka and the Arctic Sea during 1934, a total of 39 of these whales was observed by three whaling boats. Nineteen were seen during August and September in the Chukotka Sea–Bering Straits area.

In southern waters, these whales are most abundant in the cold waters of the Antarctic, but they have also been reported in several other regions. However, the information on their southern distribution seems to be rather fragmentary. Oliver (1922) reported that six had been recorded from South Island, New Zealand, and Pearson (1936) stated that this whale was apparently not a common form in Tasmania. In South African waters, one stranded specimen was reported near Table Bay by Péringuey (1921). Near Buenos Aires on the coast of South America, the occurrence of this whale has been recorded twice, once by Lahille (1908), who found a foetus, and again by Marelli (1918), who noted a stranded immature specimen. Perhaps an exhaustive study of the literature would reveal a few more records.

While this whale is now known to live in the Ross, Weddell, and other Antarctic seas (Kellogg 1940), information on its occurrence there is much more recent than for the waters of the Northern Hemisphere. Although Petersen (1895), Bull (1896), and Kristensen (1896) reported the presence of "minkhval" or "Minkwale" in the Antarctic, there was some question among later Antarctic whaling observers as to whether they had meant the little piked whale. Racovitza (1903), on the Belgium Antarctic Expedition, saw two small whales in the middle of some ice floes, but could not positively identify them. Liouville (1913) did not see any of this species on the French Antarctic Expedition. Turner (1914), however, regarded the "Minka" whale of the South Shetlands and Graham Land as the little piked whale and stated that the whalers were well acquainted with this species in the South Atlantic. Lillie (1915) of the British Antarctic (*Terra Nova*) Expedition reported that "scarcely a day passed without our getting a sight of one of these whales." Ruud (1937) stated that this species was found in the ice-pack region of the Antarctic. Mackintosh (1946) noted that this whale in the Antarctic: "is often seen close to land, but it is also seen in open leads in the pack, or near the ice edge, sometimes in large numbers and far from land. It appears that at least in the Southern Ocean it frequents colder water than any other species." Excellent photographs of this whale in the Antarctic are presented by Kellogg (1940).

In the North Atlantic region many records of this whale have been made. Along the Atlantic coast of the United States, there have been 15 definite records since

DeKay (1842) first reported the presence of this species in North America. Of this total, True (1904), recorded five, Allen (1916), nine, and Helmuth (1931), one. DeKay's specimen was stranded in New York Bay. The whale reported by Helmuth was killed at Montauk Point, Long Island, New York. Anon. (1930a,b) gave popular accounts of the harpooning of this whale by sportsfishermen. All the other 13 records were from the Gulf of Maine region between Cape Cod, Massachusetts, and Quoddy Head, Maine. Allen (1916) has also referred to 14 other specimens which he believed were this species, but lacked definite proof as to their identity. Brown (1868) mentioned that this whale comes to Davis Strait and Baffin's Bay in the summer months and occasionally during the winter to the southern portion of Greenland. Its presence in Greenland was also noted by Eschricht (1849), who summarized the early knowledge of North Atlantic whales. Allen (1916) saw numbers of these whales along the Labrador coast on a cruise in 1906 and gave a somewhat detailed account of their actions and appearances.

The only whale of this species which I have seen in the Gulf of Maine was one observed off Leonardville, Deer Island, New Brunswick, on May 28, 1947. The animal passed our boat at a distance of about 50 feet. I would estimate its length to be about 20 feet. Since 1939 I have been watching for this species in New England waters, but no strandings of these small whales have occurred during that time, so far as I know. In fact, I am aware of only five strandings of the larger species of whales in New England waters in the last nine years. Undoubtedly there have been a few more. One at Rockland, Maine, one at Portsmouth, New Hampshire, and four on Cape Cod, Massachusetts, have come to my attention. Three of the latter have been measured and identified as *B. physalus*, the common finback whale, by Lt. Colonel Eugene S. Clark, Jr., of Sandwich, Massachusetts.

Along the European coast, this whale is well known. Most of the information regarding its life history and habits has been accumulated in that region and many records of its occurrence exist. The large number of records does not necessarily indicate, however, that this whale is more abundant in the Eastern Atlantic than in other areas, such as the Western and Eastern Pacific. The presence of trained naturalists, including many cetologists, along the European coast guaranteed that records of whale strandings and captures, and other observations on these marine mammals, would be reported frequently in scientific literature.

In northern European waters this whale lives in the Kara Sea and White Sea, around Iceland, Spitzbergen, and Finmark (Collett 1912). On the Norwegian coast it is evidently so common that strandings or killings of this species are not considered as unusual enough to record. The presence of a centuries-old commercial fishery for this species in Norway indicates that this whale has long been common. Hentschel (1937) mentioned that it is the most abundant of the fin whales in Norway and Iceland. Collett (1912) stated that this species is an occasional visitor to the waters of Sweden and Denmark. He mentioned four records on the Swedish Skagerrak coast. Eschricht (1849) noted one taken at Jutland. For the Baltic region, Japha (1909) reviewed past records and found that nine little piked whales, or what appeared to be that species, had been reported between 1824 and 1901. If this information is truly indicative of its abundance, it is evident that this whale is much less common in the inland seas of the North.

The most complete information on whale strandings in Europe has been compiled for the British Isles. Through an arrangement with the British Museum and the Board of Trade, the government Receivers of Wrecks have, since 1913, reported all cetacean strandings to the British Museum (Fraser 1946). Through the efforts of

Harmer (1914, 1916, 1917, 1918, 1919, 1921, 1923, 1925, 1927) and Fraser (1934, 1946), 51 stranded cetaceans were identified as *B. acutorostrata* and five others were considered as probably that species. Some of Fraser's records included those also identified previously by Ritchie (1928, 1935), Stephen (1931, 1932, 1933), and Wotherspoon (1932). Most of the whales were stranded on the east coast of Scotland. Few were found along the southern coast of England. One was reported from Guernsey. Fraser (1946) believed that the whale does not ordinarily pass through the Straits of Dover. The whales were most common in the latter half of the year, principally in August and September on the east coast (Harmer 1927). A summary of Scotch whale reports between 1808 and 1888 was made by Turner (1893), who was able to find that there had been 16 definite records of the little piked whales and two probable ones in that period. No such summary of early records is available for the English coast. Meek (1902) saw a stranded female at Druridge Bay, England, in 1902, and undoubtedly a few other early reports have been made on this whale's occurrence there.

Considering the relatively short coastline of Holland, it is not surprising that comparatively few whales have stranded there. Deinse (1931) has listed nine which have come ashore on the Dutch coast between 1862 and 1925. Some of these had been previously reported by Weber (1922) and Oordt (1926).

The collection of cetological information has not been as well organized along the coasts of Belgium and France as in Great Britain, and the records may not be truly indicative of the abundance of this species. For the southwest coast of France, Fischer (1881) reported four records between 1835 and 1863 and one at an undetermined time prior to 1881. He stated that it had been reported six times on other parts of the French coast before 1881. Beneden (1885) mentioned three more records between 1838 and 1885. Legendre (1943) summarized the French reports since those of Fischer and Beneden and showed that there had been nine more little piked whales recorded up to 1943.

In Spanish waters, it is frequently observed (Anon. 1930c), and we can assume that it is not uncommon in Portugal. Nobre (1935) mentioned a small specimen collected at Setubal, Portugal, and reported by Seabro. As these animals seem to prefer the cold water regions, the records of little piked whales can be expected to diminish as one proceeds into the more southern waters of Europe.

The appearance of this species along the Italian coast is not frequent, according to Monticelli (1926), who stated that three were seen on the Toscan shore between 1898 and 1900 and two, one at Ischia and the other at Elba, in 1925. There are also other Mediterranean records, including those summarized by Carrucio (1913).

Its relatively small size is one of the characteristics by which this species can be distinguished from the other whalebone whales of the Northern Hemisphere. The pigmy right whale (*Neobalaena marginata*) of the Southern Ocean is a smaller whalebone whale, but lacks the ventral furrows of the little piked whale. To illustrate the range in size of these animals, we can examine the series of measurements given by Matsuura (1936) and those of various European authors. Records of North American whales are rather too few in number for this purpose.

Forty-three males and forty-three females were reported by Matsuura as taken by Japanese whalers in the waters between the Kurile Islands and Korea. The females ranged from 19.9 to 28.8 feet and averaged 23.3 feet in length, while the males had a range of 19.9 to 25.8 feet and averaged 24.0 feet. The whalers probably would not bother to kill whales much under 20 feet, and therefore the above series of measurements might not represent the true range or average size of the whale population in those waters.

On the British coasts, information on the lengths of 58 individuals of this species has been recorded or summarized by Turner (1893), Meek (1902), Harmer (1914-1927), and Fraser (1934, 1946). The animals ranged from 9.9 to 33.0 feet and averaged 23.7 feet. The sex was determined for only a few of the whales; therefore, a comparison of the sizes between the sexes would be of little value. It is interesting to note that the average size of 23.7 feet for the British specimens is almost identical with the average length of the combined sexes of the Japanese whales. While 18 British whales were under 19 feet, and therefore smaller than any of the Japanese specimens, there were also 12 over 29 feet, the Japanese maximum. The British whales were largely stranded individuals; a few were caught accidentally by various fishing gears.

Knowledge of the breeding habits is scanty. The most valuable and comprehensive data concern the sizes of embryos taken principally from females caught along the Norwegian coast. A summary of this information has been given by Grieg (1898), who has presented 61 measurements. Collett (1912) added another single record to this series. Briefly, the Norwegian measurements indicate that April embryos averaged 204 millimeters in length; May, 225 millimeters; June, 377 millimeters; July, 599 millimeters; August, 1,088 millimeters; September, 1,624 millimeters (one record only); and November, 2,032 millimeters. Of the smallest embryos, one of 48 millimeters was recovered in April and one of 33 millimeters in May, while the largest was 2,550 millimeters in November. Collett believed that mating occurred at irregular times, but probably most often in February or March, and that the period of pregnancy was about ten months. This opinion coincided with that of Guldberg (1887).

A series of eight foetal measurements is reported by Matsuura (1936). The embryos were taken from whales caught in Japanese and Korean waters. The sizes of the embryos found during June, August, and November coincided fairly well with those of the Norwegian observers for those months, being 4 shaku (1,212 millimeters), 3.1 shaku (939 millimeters), and 6 shaku (1,818 millimeters), respectively. A December foetus was 7.05 shaku (2,273 millimeters) and a March embryo, 4 shaku (1,212 millimeters). No Norwegian data exist for those two months. In April, three embryos, two of which measured 4 shaku and one, 6 shaku, were recovered. All three of these were larger than any reported by the Norwegian investigators for April. The average length of 1,313 millimeters greatly exceeds the Norwegian average of 204 millimeters for that month.

Matsuura believed that, although he could not be sure of the reliability of the results because of the scanty data, there was a difference of one to two months between the copulation and birth periods of the Japanese little piked whales and those of Norway. Undoubtedly, more information is needed before definite conclusions can be drawn.

It is generally believed that the newly born whales of this species measure about nine feet. No important additional information has been added on this subject since the summary of Allen (1916). Here again more observations are needed.

According to the relatively few observations relating to the stomach contents and feeding habits, the food of this whale is primarily fish. It is believed by most naturalists that herring (*Clupea sp.*) is eaten to a great extent in the northern waters. Eschricht (1849) stated that in the North Atlantic this whale is known to eat herring and capelin (*Mallotus sp.*) Since several of the whales recorded in New England were taken in fish traps, Allen (1916) believed that they were in pursuit of fish and thought that herring probably was their chief food. Henking (1901) reported

that in European waters herring schools were often pursued, and a similar statement was made by Hentschel (1937). On the west coast of Norway, according to Collett (1912), this whale gorges on herring during the season when that fish is plentiful. Legendre (1943) stated that French trawlers out of Boulogne usually consider its appearance as an indication of nearby herring schools. Similarly, the herring fishermen of the Gulf of Maine consider the presence of the finback whale (*B. physalus*) or the humpback whale (*Megaptera novaeangliae*) in bays to be a sign that herring are present. That the little piked whale was numerously represented among the whales which follow the fish in Norwegian waters was explained by Guldberg (1887). Collett (1912), Ruud (1937), and Hentschel (1937) mentioned the consumption of other fish such as cod (*Gadus sp.*), pollack (*Pollachius sp.*), and whiting (*Merlangus sp.*) in European waters. Racovitza (1903) referred to this whale as a hunter of codfish in Iceland. In Russian waters, Tomilin (1937a) found 43 specimens of the fish *Eleginus*, each weighing 550-660 grams, in a whale caught off Siberia. Carl (1946) found remains of fish, apparently herring, in a British Columbia specimen.

Crustaceans are also eaten by this whale. Bull (1896) and Kristensen (1896) reported that the two "Mencke" whales taken by them in Antarctic waters both had stomachs full of euphausids. The "Mencke" whales referred to by those two authors are now believed to have been *B. acutorostrata*. Ruud (1937) has said that crustaceans are eaten in the Antarctic waters. Collett (1912) stated that "Krill," the larger planktonic crustaceans, was eaten at Finmark. Hentschel (1937) reported that, in addition to euphausids, crabs and shrimps were also occasionally consumed. Zenkovic (1937) found, in addition to the wachna cod (*Eligenus navaga gracilis*), the remains of planktonic crustaceans in two whales caught by Russians in the North Pacific.

The available information on the stomach contents of the whale is based almost entirely on examinations of animals either stranded or taken incidentally by inshore fishermen. Likewise, the observations of feeding habits have been largely made by coastal observers. What do the whales eat during the winter when they are not commonly present in the coastal waters? Do they continue to consume fish or do they depend upon the plankton for nourishment? Are these whales primarily fish-eaters in the Northern Hemisphere, and plankton-eaters in the Southern Hemisphere? Much more information is needed to settle these questions definitely.

This whale is not generally considered to be of any economic value, because of its small size and small oil yield. Another reason for lack of intensive commercial utilization is that the animal tends to be solitary and is seldom found in company with more than a few others of its species. In comparison to the numbers and values of other species of whales, the few lesser rorquals taken by the fisheries would appear truly insignificant. To my knowledge, the great whale industry of the Antarctic regions disregards this species. In several localities, however, this whale is pursued on a small scale.

In Norway, according to Ruud (1937) and Sund (1938), a modern fishery for this small whalebone whale was initiated in 1933. Small motor boats ranging in length between 25 and 75 feet were equipped with harpoon cannons or harpoon guns. These boats catch not only the little piked whale, but also killer whales, dolphins, porpoises, and large sharks. The development of the present fishery is shown in the reports of the Norges Fiskeridirektøren (1939-1940, 1942-1945, 1947-1948). Statistics of the catch are not complete for the years prior to 1938. It is known, however, that at least 2,020 metric tons of little piked whale meat were produced in 1937.

Since 1938 the statistics of the catches of these small whales have been collected and published annually. The annual catches of the little piked whales for the years 1938 through 1944, in numbers of animals, were: 1938 (1,340), 1939 (916), 1940 (537), 1941 (2,113), 1942 (2,131), 1943 (1,611), and 1944 (1,373). The most productive districts have been Vestfjorden, Stad to Halten, and Stavanger to Stad. In 1940 there were 332 boats engaged in this fishery. These vessels were most active in the spring, after the seasonal end of the cod fishery upon which most of the fishermen depend for a great part of their livelihood. Most of the whale flesh is used for feeding fur-bearing animals, which are raised on a large scale in Norway. The Norwegians also eat the flesh to some extent. Some of the whale meat exported from Norway may be of this species.

An unusual fishery for the little piked whale has been carried on near Bergen, Norway, since the Middle Ages. Eschricht (1849), Clark (1887), Henking (1901), Collett (1912), and many other authors have given descriptions of the methods by which the whales were killed prior to the twentieth century. During the spring and summer months, this whale often swims into the numerous bays and fjords near Bergen. The most famous of these "whale bays" are Skogsvaag and Tellevaag. In those two localities were caught the female whales from which Grieg obtained his foetuses. When a whale was sighted inside the bay, a net was stretched across the entrance to prevent the exit of the animal. Ruud (1937) mentioned that the net material was old herring twine and that it was not the strength of the net that kept the whale enclosed. Evidently the whale avoided the meshes, which it could have easily torn through and thus escaped. The whale was shot with arrows which had been previously poisoned by being dipped into the festering sores of an earlier caught whale. "Blood poisoning" caused the whale to become weakened within several days and then it could be killed safely with harpoons. Arrows for future use were dipped into the whale's sores. According to Nielsen (1890), a characteristic bacillus was present in the wounds, and the spores of these bacteria would keep alive for a long time on the arrows. The use of poisoned arrows was abandoned during the 1890's and rifles were substituted. Sund (1938) mentioned that this shore fishery was still carried on near Bergen. Collett (1912) stated that the yearly yield in Skogsvaag was 10 to 12, occasionally 20 in good years, while at Tellevaag as many as 12 whales were killed yearly.

In the Pacific Ocean areas both the Russians and the Japanese have taken these whales commercially. Matsuura (1936) mentioned that Russian whaling fleets have taken this mammal since 1933 off the east coast of Kamchatka, in the Bering Sea, and in the Arctic Ocean. Tomilin (1937a) reported the killing of two during 1934 in Arctic waters. Anon. (1948) listed the kill of these whales by Russian whalers in northern Pacific waters as 13 between the period 1933-1946. Tomilin thought that this whale, together with the bottle-nosed whale, could be profitably pursued by small Russian schooners.

In Iceland, Saemundsson (1939) stated that between 1914 and 1930 a total of 213 of this species was harpooned from motorboats in the fjords of the north and northwest coasts.

Matsuura (1936) reported that the lesser rorquals have not been highly regarded by whalers in Japanese waters, because the commercial value is small and the capture is comparatively difficult. He gave rough catch figures of 20 whales in 1932, 18 in 1933, 45 in 1934, and 3 in the first three months of 1935. Of this total, 7 were caught in the southern Kuriles, 13 in the Sea of Japan off the Korean coast, 44 in Tsushima Straits, and 22 in the Yellow Sea. In addition, about 20 to 30 whales per year were taken by small-scale whalers in the Miyagi Prefecture.

On the North American continent this whale has always been of little importance. Scammon (1874) mentioned that the little piked whales were taken but rarely by the Washington Indians near Cape Flattery. Collins (1892) stated, however, that the Indians utilized every opportunity to catch this species off Cape Flattery and the entrance to the Strait of Juan de Fuca. There is no information regarding the yearly kill of whales in that region, but considering the primitive gear the Indians would employ, the number of whales taken must have been small. Waterman (1920) described the whaling methods of these aborigines. This early fishery is evidently no longer in operation. In British Columbia waters two of these whales were taken by whalers operating from the Queen Charlotte Islands during 1923 (Kellogg 1931), but ordinarily they are ignored. No attempt at present is made to take any of these whales on the entire Pacific coast of North America.

Allen (1916) explained that in the North Atlantic region of North America, this whale is occasionally killed to provide food for Eskimo dogs, and in Greenland to supply food for the Eskimos. Little is known of the numbers killed by the natives; probably the total is very small. A Newfoundland whaling company caught 16 little piked whales in 1947 and 41 in 1948, according to information received by Crosbie and Company, Limited of St. John's, Newfoundland. Along the New England coast no effort is now made to capture whales of any species, and even stranded specimens of such commercially valuable members as the finback whales and the humpback whales are, with a few exceptions, towed to sea for disposal.

As far as I can determine, this whale is not ordinarily utilized in European countries, except Norway. In England where it seems to be relatively abundant, it has been ignored, and in other coastal European nations it seems to have been considered to be of no value. However, during the past war, at least one of these animals was eaten in France. One whale was reported by Legendre (1943) to have been cut up and sent to the Paris markets for human consumption. The specimen was an adult female of eight meters length, which had been stranded and killed near Concarneau, France, during September, 1943. Perhaps not a few whales were eaten during the last war by those who would have previously deemed them inedible, or at least undesirable.

The little piked whale of the Pacific was described as *Balaenoptera davidsoni* by Scammon (1872). Whether or not the Pacific whales were different than those of the Atlantic was long a matter of conjecture. Cowan (1939) has investigated this matter and decided that the data are inconclusive to establish the two geographic groups as separate species. I have compared the various body proportions of ten European specimens cited by True (1904) and the seven taken on the Atlantic coast of the United States, as reported by DeKay (1842), True (1904), and Allen (1916), with those six from the Pacific coast of North America, as recorded by Scammon (1872), Fry (1935), Cowan (1939), Carl (1946), and myself. I have been unable to establish any significant statistical difference between the body proportions of the two oceanic groups of whales. Before any specific or racial differences can be established on a sound basis, there must be more observations, both of the external and the skeletal proportions. For the present, *B. acutorostrata* can be considered as the correct name for the little piked whale of the Pacific.

The number of baleen plates on each side of the jaw in the Pacific specimens has been reported as 270 (Scammon 1872, Tomilin 1937a), 231 (Cowan 1939), and 285 (Carl 1946). My two specimens had 256 and 272 plates. For European whales the number mentioned is usually 325, which figure is apparently based on a statement of Collett (1886). In a later publication, however, Collett (1912) stated that

the count was about 300 and reported that a small pregnant female, taken at Varangerfjord in 1910, had 290 baleen plates. In addition, Turner (1893) counted 287 and 290 plates on the two sides of one whale's jaw, 274 and 270 on another whale, and 311 on each side of the jaw of a third specimen. Allen (1916) found 316 on a Provincetown, Massachusetts, whale. It would appear that the Pacific whales have slightly fewer baleen plates than those of the Atlantic, but of course the data are few.

It is hoped that mammalogists everywhere will avail themselves of every opportunity to make observations on cetaceans. Our knowledge of the life histories and habits of marine mammals, particularly those of little or no commercial importance, is indeed meager.

I wish to acknowledge the assistance of Dr. Raymond Gilmore of the U. S. Fish and Wildlife Service, and Dr. Remington Kellogg of the U. S. National Museum, both of whom read the original manuscript and suggested certain improvements.

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GENERAL NOTES

White-throated Sparrow in King County, Washington, in Winter.—Two white-throated sparrows (*Zonotrichia albicollis*) were seen on January 16, 1949, in the Sammamish Valley, King County, Washington. Both observers know the species well from experience in New England. The birds were observed closely for several minutes. When at attempt was made to collect them, a neighbor protested that gunfire would disturb minks being raised commercially adjacent to the alder and maple grove where the birds were found.

Most authorities list this species as a rare straggler in fall and spring migration. This affords a second sight record in winter (see Culver, *Murrelet* 29(3) : 49).—H. Stanley Bennett and Garrett Eddy, *Seattle, Washington.*

Nesting of the Barn Swallow in Western Oregon.—The purpose of the following notes is to establish more definitely the knowledge of the nesting of the barn swallow (*Hirundo rustica erythrogaster*) in western Oregon. In the *Birds of Oregon* (1940: 411) Gabrielson and Jewett say "The earliest egg date we have actually recorded is May 6, the latest, June 5, though we are certain this latter date does not represent the end of the egg-laying period."

During a two-year study period at a swamp and marsh area south of Corvallis, Benton County, Oregon, I had occasion to record weekly data on the nesting of a pair of barn swallows.

The nesting site was the west wall of a porch on an old cabin at the edge of the swamp. The porch was walled in to the north and south as well. In all instances the nests were located at a height of approximately eight feet above the porch floor. The nests were all a little larger than a half-cone shape and were attached to the vertical face of the rough-boarded wall, with no basal support whatever. The nests were typical of barn swallows, composed of mud pellets and grass stems, and lined with feathers, usually white, but red-brown in one instance.

This sequence of events occurred in 1947:

April 22—First arrivals.
May 6—Nest nearly completed.
May 13—Lined with red-brown chicken feathers; 1 egg.
May 20—More feathers added; 5 eggs.
May 27—5 eggs.
June 7—3 young about 4 days old. No sign of the other 2 eggs.
June 17—3 young. Nest clean; fecal deposits in pile on floor under nest.
June 25—Young had vacated nest, and nest had been knocked from wall.
August 9—New nest constructed just 3 inches from site of first nest. Adult on nest. 2 eggs present.
August 13—Nest empty; 1 broken egg on floor; egg embryo was nearly hatching size. No sign of any other eggs. No adults near the nest site.
October 7—Last swallows seen in 1947.

This nest was destroyed by cabin occupants during the winter. Second nestings are usually not attempted when the building of a completely new nest is required.

This sequence of events occurred in 1948:

May 1—First arrivals.

June 13—New nest within 6 inches of two previous nest sites (1947); both adults at nest; 4 eggs.

June 21—4 young, freshly hatched; 1 egg. I accidentally pulled the nest from the wall, and replaced it by placing it in a shotgun shell cardboard box, which I tacked in the approximate nest position on the wall. This did not deter the nesting activities of the swallows, and it facilitated future observations, for I could reach up and lift the nest from the box and replace it easily when through observing.

June 23—4 young, 1 egg.

June 29—3 young in nest. 1 young found dead on floor below nest. No egg. Fecal pile building up on porch floor below nest.

July 8—Both adults at nest. The last remaining young one left the nest as I reached up to lift the nest down.

July 16—Both adults at the same nest; nest very clean, and relined with white feathers; 3 eggs.

July 23—4 eggs.

July 29—Adult on nest; 4 eggs.

August 30—Several pair of adults about the porch; nest torn from wall, badly broken; 3 young (sheathed primaries over 1 inch long) dead about a week, partially eaten and strewn within a 20-foot circle of the nest site. A grey ground squirrel (*Citellus beecheyi*) residing in the chimney of the cabin may have been responsible.

The incubation period seems to be about 20 days in western Oregon, and the young remain in the nest about 18 days after hatching. Data presented on these two nestings agrees with much of the information given in Bent's *Life Histories of North American Flycatchers, Larks, Swallows, and their Allies* (U. S. Nat. Mus. Bull. 179, 1942, pp. 439-58), but adds definite data for western Oregon.—Fred G. Evenden, Jr., *Woodburn, Oregon.*

European Starling in King County, Washington.—On January 16, 1949, ten European starlings (*Sturnus vulgaris vulgaris*) were found in a farming and rural residence area between Redmond and Bellevue, King County, Washington. The birds were feeding in a wet meadow with a flock of robins, but were nervous, and moved in a ragged flock westward from field to field. A close look was obtained, however, and it should be emphasized that both observers are all too well acquainted with this species in the East. An attempt was made to collect specimens, but the starlings moved too rapidly, perhaps being intent on traveling.

The invasion of the Puget Sound region has started. It will be a fruitful study for all observers to note in detail how a vigorous species disrupts the local "balances" by increasing to large numbers over the first years, then, we hope, finally settling down as an accepted, but not welcome, member of the avifauna, somewhat as the English sparrow has done.—H. Stanley Bennett and Garrett Eddy, *Seattle, Washington.*

California Bush-Tit in Eastern Washington.—The addition of another bird to a local or state list is always of keen interest to an ornithologist, and the sight of a bush-tit on Mule Dry Creek, four miles above its junction with Satus Creek, Yakima Indian Reservation, Yakima County, Washington, was no exception.

On April 13, 1947, a bush-tit was observed carrying nesting material, and a short search of the area soon located the nest ten feet up in an alder growing along the banks of the small stream. Although the nest was watched closely for an hour or so, the bird was not seen again. The nest was visited again on April 20 and 25, but no birds were seen. On the last visit the nest was carefully opened and was found to contain eight eggs, seemingly partly incubated. This was the last trip to this area during 1947, and I hoped to return again the following year.

On April 11, 1948, I was collecting on Logy Creek, two miles above its meeting with Satus Creek, Yakima Indian Reservation, where I noticed a bush-tit's nest 15 feet up in an alder growing in a brushy place in the creek bottom. Upon shaking the tree, a bush-tit flushed from the nest. Shortly afterwards it returned to the nesting tree, where it was collected. The specimen proved to be an adult male. It was sent to Stanley G. Jewett of the U.S. Fish and Wildlife Service, Portland, Oregon, who identified it as a California bush-tit (*Psaltriparus minimus californicus*). So far as the writer knows, this is the first nesting record for this subspecies in the state.

The specimen was also sent to Dr. Aldren H. Miller, University of California at Berkeley, who wrote as follows: "The bush-tit I find is a fairly good match for *californicus*. It is a little darker on the sides than our Modoc-Lassen birds of this race. Thus, it is an intermediate toward *minimus* but it does not have the brownish sides and the dark back prominent in *minimus* of Oregon and Washington. I wonder whether it is a northward range extension or, perhaps even more likely, an independent, weak modification, paralleling that of *californicus* farther south."

On the following Sunday, April 18, I was again back at the area on Mule Dry Creek, where the bush-tit was first found in 1947, and saw three birds in two different places several miles apart. The first two birds were seen carrying nest material, and a brief search soon located the nest six feet up in a small clump of sumac and wild grapevine. This nest contained five eggs which had been incubated four or five days.

On May 29, 1948, a female was collected from a group of four birds, two miles below the Mill Creek Guard Station, Yakima Indian Reservation, Yakima County, Washington. On November 7, 1948, two specimens were collected from a flock of some 20 birds on Snipe's Dry Creek, Yakima County, and on November 11 a single bird from a flock of some 20 was collected halfway between the mouth of Snipe's Dry Creek and the mouth of Logy Creek. On November 14, while collecting on Logy Creek, two separate flocks of about 20 birds were observed, but no specimens were taken.

From the collecting and observation records it will be noted that the birds were found in five localities, all on the Yakima Indian Reservation, with the same deciduous trees and typical life zone. It will be interesting to investigate other like areas to learn just how widely distributed these birds are in Yakima County.

It seems very evident to me that these birds have only recently worked into Yakima County. For the past 15 years I have done considerable field work in four of the five areas where specimens have been collected. The number of such field trips, both spring and fall, was too great for me to have missed the bush-tits if they had been present.

I wish to express my thanks to Mr. Stanley G. Jewett and Dr. Alden H. Miller for their identifications; to Mr. L. W. Shotwell, Superintendent, and Mr. George Herion, Forest Supervisor, Yakima Indian Agency, whose cooperation has made this record possible.—JOHN B. HURLEY, *Yakima, Washington.*

Black Duck Taken in Washington State.—On November 1, 1946, Howard Davis of Port Townsend, Washington, shipped to the state of Washington Department of Game the skin of a duck that he had killed in Jefferson County on October 30 of that year. Mr. Davis apparently recognized the bird as a black duck, but wished more positive identification. It was subsequently identified by Stanley G. Jewett of the U.S. Fish and Wildlife Service, and others, as a black duck (*Anas rubripes*) whose normal range is eastern North America.

The bird was killed by Mr. Davis at a small pothole on Olalle Point, about two miles north of Port Ludlow in Jefferson County, Washington. It was one of a flock of six or eight ducks that were flushed from the pothole, and this was the only bird killed. Mr. Davis assumed that they were all mallards until he retrieved this bird.

Apparently this is the first record of a black duck in the state of Washington.—J. BURTON LAUCKHART, *Department of Game, Seattle, Washington.*

Sight Records of Loons in Southeastern Washington.—There are no published records of loons (*Gavia immer*) seen in southeastern Washington, as far as the writer knows; for that reason the following records may be of interest.

Monthly inventories of waterfowl have been made along the Snake River from Wawawai to Central Ferry since April, 1947, by floating down the river in rubber life rafts. The following records of three loons seen along the river during September and October, 1948, are the only ones of this species observed in this area.

September 30, 1948. A loon was seen on the Snake River four miles southeast of Penawawa, Whitman County. The bird was observed apparently diving for food. Mr. H. A. Hansen, biologist for the state of Washington Department of Game, and the writer clocked the time that the loon was under the surface of the water on three occasions. The time for each dive was 30, 43, and 40 seconds respectively. The bird allowed us to float by him in a five-man rubber boat after it had swum and dived across our course.

October 21, 1948. C. W. McNeil, Fred Lynd, Fred Yocom, and the writer noted a loon swimming along the shoreline of the river one mile north of Wawawai. An attempt was made to collect this bird. The loon flew as one boat approached it. When the bird was shot at, it fell, as though wounded, into the water and dived. As soon as the loon surfaced, however, it swam a short distance, then flew out of sight up the river. Apparently the bird had not been hit and feigned injury by plunging only a few feet into the water where it instinctively must have felt more able to cope with danger.

On the same day several miles downstream another loon was observed swimming in a calm bay above swift waters three miles west of Almota, Whitman County.

These loons were undoubtedly migrants and had stopped to feed and rest on the Snake River which has cut a narrow canyon nearly 2,000 feet deep through this area. —CHARLES F. YOCOM, *Department of Zoology, State College of Washington, Pullman, Washington.*

NOTES FROM THE FIELD

Effects of Severe Winter on Wildlife in Eastern Washington.—At a meeting on March 12, 1949 in Pullman, Washington, a symposium was held on the effects of the unusually severe winter of 1948-49 on wildlife. Henry A. Hansen, Irven O. Buss, Thomas D. Burleigh and Arthur Haines (for Helmut K. Buechner) participated in the symposium.

On the basis of the discussions it appears that it is difficult to evaluate the effect of the severe winter on wild animals, since observations made in the field are not subject to controlled experimentation. However, a few generalizations are probably warranted.

The duck population of eastern Washington was forced out of the Palouse wheat and pea area by the deep snow, which covered their food supply. However, many of the ducks wintered along the Snake and Columbia rivers, where open water was always available, and also along the Spokane and Little Spokane rivers.

Many specimens of pheasants and quail examined at various times during the winter seem to indicate that upland game birds, for the most part, came through the winter in fairly good condition. Of those killed on the highways, only four were emaciated; the others showed good supply of fat.

The small song birds were perhaps more seriously affected by the extreme weather conditions. Some dead specimens of robins picked up were in extremely thin condition, and there was some evidence that song sparrows and flickers may have suffered considerable mortality. Some of the less sedentary song birds, like house finches and goldfinches, probably moved to lower ground along the Snake River, where conditions of temperature and snowfall were much less severe. Several periods of milder weather during the winter caused the snow to disappear from some of the more exposed southern slopes, and this probably did much to alleviate conditions.

There was considerable mortality among white-tailed deer along the Tucannon River in Columbia County, and it seems probable that these losses were due primarily to the severe winter conditions prevailing.—GEORGE E. HUDSON, *Department of Zoology, State College of Washington, Pullman, Washington.*

ADDITIONS TO SOCIETY LIBRARY

HIGMAN, HARRY W., and LARRISON, EARL J. 1949. *Pilchuck—The Life of a Mountain.* Seattle, Superior Publishing Company. 288 pp., illus. Cloth. $3.50.

In this day of specialization in the natural sciences it is refreshing to read such a volume as this, written from the point of view of the all-around naturalist.

"Pilchuck" is a delightful and informal account of the adventures of three friends, all of whom are interested in the world of plants, animals, geology, and history of one segment of the Cascade Mountains in Washington. In discussions of their observations, as derived from three quite different backgrounds, on the trail or about their campfires, one gleans much wisdom and many facts concerning the multitude of details which are embodied in their varied interests.

This is not a handbook. It does not present facts of natural history in the usual systematic fashion. To have done so would have eliminated much of this book's charm and interest. Rather it is a running account of day-to-day observations over a period of years. By such treatment the area about Pilchuck "comes alive" through the simple expedient of calling the reader's attention to many things that many people have observed and wondered about while on similar excursions in the Cascades. One readily becomes a part of this small group in their wanderings; the forest, the flower meadows, the lakes, and the scenic features of the rugged terrain become as pages in a book, rich in interest, from which one reads through the eyes of these men who seek the truth in satisfying their own particular interests in their own particular fashion.

The charming pen-and-ink sketches are by the well-known nature artist Edmund J. Sawyer. The end sheet topographic map of Mount Pilchuck was created and executed by Robert Bock, a young Northwest artist. An index makes easy reference to specific subjects.—C. FRANK BROCKMAN.

ANDERSON, RUDOLPH MARTIN. 1948 [issued March 22, 1949]. *Methods of Collecting and Preserving Vertebrate Animals.* 2nd ed. rev. Ottawa, National Museum of Canada, Bull. No. 69 (Biol. Ser. No. 18). 162 pp., 48 line drawings. Cloth $1.00, paper 50c.

The reissue of this valuable handbook is indeed welcome. The first edition, prepared in 1932, was soon exhausted, due to a misunderstanding that it was a handbook for trappers; hence it was long unavailable to many collectors of scientific specimens. Primarily designed to acquaint prospective collectors with the proper care of specimens for shipment to the National Museum of Canada, it is one of the most complete and concise manuals in its field.

The second edition includes the latest practices of scientific taxidermy, illustrated with clear drawings of each step in the process. There are 11 pages of references and a complete index.—MARTHA R. FLAHAUT.

PETERSON, ROGER TORY. 1949. *How to Know the Birds.* New York. The New American Library of World Literature. Plastic-covered paper covers, pocket size. 144 pp. 35c.

This is a Mentor Book. It was written by the well-known author of the *Field Guides* "mostly for those who have never had a bird guide before, but who are becoming aware of the multitude of birds with which we live." In it Mr. Peterson has pointed out the short cuts to recognition of birds, and demonstrated them with over 400 illustrations. Even the sophisticates who already own one of the larger *Field Guides* may find this book useful "as a sort of refresher course." The chapter on *What to Look For* is especially helpful. There is an index, of course.

The beginner in bird watching may well "cut his teeth" on this book, without buying one of the more expensive books until he is ready for them.—MARTHA R. FLAHAUT.

COMMENTS AND NEWS

The new Constitution and Bylaws adopted in January, 1949, will be printed in its entirety in a later issue of *The Murrelet.* The new provisions of most interest to members are as follows:

(a) The establishment of a fourth region to be called the Inland Region, comprising all of Washington, lying east of the Cascade Mountains, Idaho, and western Montana.

(b) Establishing dues for active members as follows:

Regular member	$ 3.00
Contributing member	$ 5.00
Sustaining member	$10.00
Life member	$50.00

(c) Any member of this Society who shall fail to pay any dues or amounts charged against him within four months after being notified of his delinquency may be subject to suspension from the Society. Such suspension shall remove such member from good standing, shall be cause to suspend him from active membership, shall be cause to cease sending regular publications of the Society to such member, and shall make such member ineligible to vote or cast ballots in elections or meetings of the Society, and ineligible to hold office in the Society. If such suspended member fails to pay dues and assessments charged against him eight months after being notified of his delinquency, he shall be removed from the rolls as a member and his rights and privileges as a member shall cease.

(d) All resignations shall be in writing addressed to the Secretary of the Society, and may be accepted by a majority of those present at the next regular meeting.

The following committees have been approved by the Executive Board:

Membership: Ian McT. Cowan, Murray L. Johnson, George E. Hudson (Chairman).

Publications: Stanley G. Jewett, George E. Hudson, Murray L. Johnson, Ruth Dowell Svihla, Gordon D. Alcorn (Chairman).

Audit: Margaret A. Ivey, Murray L. Johnson, Gordon D. Alcorn (Chairman).

Program: Victor B. Scheffer, William Goodge, Murray L. Johnson (Chairman).

Earl J. Larrison, who filled the exacting position of Secretary and Program Chairman so efficiently for a number of years, has accepted a position as Assistant Professor of Zoology at the University of Idaho, Moscow, Idaho, after completing most of the work for a doctorate in philosophy at the University of Michigan.

The Society welcomes back to the Pacific Northwest a charter member, Thomas D. Burleigh, who has been transferred to the Idaho Co-operative Wildlife Research Unit of the U. S. Fish and Wildlife Service with headquarters at the University of Idaho, Moscow.

It is with deep regret that we learn of the death, on May 22, 1948, of Henry J. Rust of Coeur d'Alene, Idaho. Mr. Rust joined the Society in 1926, and was a loyal member until his death.

With the expansion of *The Murrelet* made possible by increase in dues and contributions, we hope to have occasional items about members. The Editor will be glad to receive for publication items of interest about members.

SOCIETY MEETINGS

JANUARY, 1949.—The annual meeting of the Society was held on January 15, 1949, in the Walker-Ames Lounge, Parrington Hall, University of Washington, Seattle, with about fifty members and guests attending.

President Carl called the meeting to order at 2:30 p.m. On behalf of Mr. Theed Pearse and himself, he extended greetings from the British Columbia members, and stated they were looking forward to a meeting in Vancouver in June. He appointed Theed Pearse and Victor B. Scheffer tellers for counting the ballots.

The Secretary reported 217 members in good standing at the end of 1948, including 71 new members elected during the year. There were three resignations, and three losses by death: R. Bruce Horsfall, Henry J. Rust, and William T. Shaw. Five meetings were held during the year, two in Seattle, one each in Corvallis, Oregon, Pullman, Washington and Parkland, Washington.

The Treasurer gave a summary of a report previously rendered at the meeting of the Executive Board. Mr. Eddy reported that members had responded generously to the appeal for funds, by outright gifts and by becoming contributing or sustaining members. The financial pressure had been relieved, and the Society's finances were in what might be considered a convalescent state.

The following persons were elected to membership: Hubert Barton and Allan C. DeLacy, both of Seattle.

A petition nominating Theo. H. Scheffer to the rank of honorary life member was read for the second time, and he was duly elected.

President Carl reported that the Executive Board had tentatively scheduled a meeting of the Society with the Cooper Ornithological Club on June 17 or 18, 1949, at the meeting of the Pacific Division of the American Association for the Advancement of Science in Vancouver, B.C., the exact date to be announced. The action of the Executive Board was approved.

The afternoon program consisted of the following papers: "The Marbled Murrelet; Problems in the Study of its Nesting Habits," by Charles Guiget of the British Columbia Provincial Museum; "Sex Populations in Birds," by Theed Pearse of Comox, B.C.; "Parasites of Muskrats in Eastern Washington," (illustrated), by C. W. McNeil of the State College of Washington; "Observations of Birds in the San Juan Islands in the Summer of 1948," by William Goodge of the Washington State Museum; "Sea Birds of Baja California," (illustrated), by Karl W. Kenyon of the U. S. Fish and Wildlife Service.

The meeting adjourned to the banquet room in the University Commons for dinner at 6:00 p.m.

After dinner the tellers reported the following officers had been unanimously elected: *President,* G. Clifford Carl; *First Vice President,* Murray L. Johnson; *Vice President for Oregon;* Stanley G. Jewett; *Treasurer,* Garrett Eddy; *Secretary,* Margaret A. Ivey; *Trustee* (1952), James A. Macnab. Ian McTaggart Cowan will hold over as Vice President for British Columbia. The adoption of the new Constitution had been approved.

President Carl expressed appreciation for the confidence shown by the members in continuing the officers for a second year to enable them to complete the program they had planned. He announced that Dr. Johnson had accepted the chairmanship of the Program Committee for the coming year, with Victor B. Scheffer and William Goodge assisting. He also stated that the Membership, Publications, and Audit committees would be selected by the Executive Board, and they would be announced later.

Stanley G. Jewett acted as toastmaster and honored 15 charter members who had remained in good standing through the 29 years' existence of the Society, three of whom were present. He called on various members for short speeches.

Dr. Frederick S. Hulse of the Department of Anthropology of the University of Washington spoke on "An Anthropologist's View of Primate Evolution."

Dr. Alexander V. Arlton, retired faculty member of the Pacific Lutheran College, repeated by request his imitations of bird calls and showed his special instruments for measuring pitch.

Dr. Roy F. West showed a reel of colored film "Marmots in the Olympic Mountains," taken by H. B. Crisler, and two reels of bird life taken by his nephew, Dr. Ralph West. —MARGARET A. IVEY, *Secretary.*

MARCH, 1949.—The new Constitution and Bylaws, adopted by ballot in January, 1949, provided for a fourth region for the Pacific Northwest Bird and Mammal Society, consisting of eastern Washington, Idaho, and western Montana. Dr. George E. Hudson, Trustee, has reported that a meeting was held in the Science Hall at the State College of Washington, Pullman, on the morning of March 12, with forty-seven members attending. Dr. Russell T. Congdon of Wenatchee, Washington, was elected Regional Vice President.

Charles F. Yocom of the State College of Washington discussed the principal duck breeding areas in eastern Washington, and Earl J. Larrison of the University of Idaho discussed his census of water birds at Green Lake in the city of Seattle, Washington.

Most of the meeting was concerned with a symposium on the influence of the severe winter on wildlife. Henry A. Hansen discussed this from the standpoint of waterfowl, Irven O. Buss from the standpoint of upland game birds, and Thomas D. Burleigh discussed nongame birds. Helmut K. Buechner's ideas on big-game animals were explained by Arthur Haines, since Mr. Buechner was unable to attend.

A summary of the discussion appears in another section of this issue.

MARCH, 1949.—A regional meeting of the Society was held at Reed College, Portland, Oregon, during the afternoon and evening of March 26.

The afternoon meeting was called to order at 2:30 p.m. by Stanley G. Jewett, Vice President for Oregon. About forty-seven members and guests attended the afternoon session.

Dr. Ralph W. Macy of Reed College gave the address of welcome, with response by Dr. Murray L. Johnson of Tacoma, Vice President for western Washington.

The program consisted of the following papers: "The Waterfowl of Reed College" (illustrated by slides), by Leo F. Simon; "The School of Game Management at Oregon State College," by David B. Marshall; "The Oregon Game Commission Winter Quail Conservation Program" (illustrated by motion pictures), by Phil W. Schneider; "Some Internal Parasites of Birds" (illustrated by motion pictures), by Dr. Ralph W. Macy; "Biological Warfare and Disease-Carrying Insects," by C. Andresen Hubbard. Lively discussions followed all papers.

Dinner was served in the Reed College dining hall, with Mr. Hubbard acting as toastmaster, after which two reels of wildlife were shown by Mr. Jewett, and a fine series of North and South American hummingbirds, from the collection of Alex Walker, was studied.—STANLEY G. JEWETT.

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Founded January 7, 1920

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